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PREFACE

It is our pleasure to welcome you to the 9th International Conference in Education and Social Science (ICESS-2024) "Pathways to Professional Excellence" in Songkhla, Thailand. A major goal and feature of it is to bring educator or researchers together to exchange and share their experiences and research results about research, and discuss the practical challenges encountered and the solutions adopted.

The program consists of invited sessions and discussions with eminent speakers covering a wide range of topics in education research. This program provides all attendees with the opportunities to meet and interact with one another. We hope your experience is a fruitful and long lasting one. With your support and participation, the conference will continue its success for a long time.

We would like to thank the organization staff, the members of the program committees and reviewers. We also would like to express our gratitude to the external reviewers, for providing help in the review process, and the authors for contributing their research result to the conference.

We wish all attendees an enjoyable scientific gathering in Songkhla, Thailand. We look forward to seeing all of you next year at the conference.

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A TRAINING PACKAGE FOR THE DEVELOPMENT OF THAI TEACHERS IN THE 21ST CENTURY WITH THE APPROACH OF VISIBLE LEARNING

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Abstract

The purpose of this paper is to investigate the development and execution of a training package that is designed to provide Thai educators with the necessary skills and knowledge to effectively implement the principles of Visible Learning. This framework, which was developed by John Hattie, emphasizes the transparency and quantifiability of student learning in order to improve educational outcomes. By incorporating Visible Learning principles, the training program endeavors to address the distinctive challenges encountered by Thai educators and enhance student engagement and achievement by implementing evidence-based instruction, reflective teaching practices, and effective feedback mechanisms. The program is also in accordance with the educational requirements of the 21st century, emphasizing critical thinking, creativity, collaboration, and communication skills (4Cs), and is specifically designed to accommodate the cultural, social, and educational contexts of Thailand. The manuscript aims to enhance the quality of education in Thailand, equipping students with the skills necessary to succeed in a multifaceted, interconnected world.

Keywords: *Visible Learning, professional development, school development, achievement enhancing, teacher training.*

Introduction

The 21st century has introduced a plethora of challenges and opportunities that require a transformative approach to teaching and learning in the swiftly evolving landscape of education. Thai educators, who are essential components of the educational process, must be furnished with modern pedagogical strategies that are consistent with the requirements of the present century. John Hattie developed the concept of Visible Learning, which has become a significant framework for improving educational outcomes by increasing the transparency and quantifiability of student learning (Hattie, 2009). The purpose of this paper is to investigate the development and execution of a training program that is designed to equip Thai educators with the necessary skills to effectively implement the principles of Visible Learning in order to enhance student engagement and academic performance.

Hattie (2009) posits that Visible Learning is founded on the synthesis of more than 800 meta-analyses concerning student achievement, providing a comprehensive, evidence-based perspective on the factors that possess the greatest influence on learning. This method underscores the significance of instructors comprehending their influence on student

learning, implementing instructional strategies that are evident to both students and teachers, and establishing an environment in which feedback is an integral component of the learning process (Hattie, 2009). The goal is to develop a group of educators who are proficient in leveraging data-driven insights to improve student outcomes and instructional practices by incorporating these principles into the training of Thai teachers.

In the 21st century, the necessity of addressing the changing educational requirements of students underscores the urgency of a training program. As the Partnership for 21st Century Learning (2019) notes, these requirements encompass not only academic competencies but also critical thinking, creativity, collaboration, and communication skills. Together, they are commonly known as the '4Cs.' The alignment of teacher training with these competencies is essential for preparing students to flourish in a complex, interconnected world. Consequently, this paper delineates the development, execution, and assessment of a training program that is specifically designed to provide Thai educators with the necessary knowledge and skills to cultivate these indispensable 21st-century competencies within the context of Visible Learning.

The need for a specialized training package for Thai instructors is clear, as they operate in distinct cultural, social, and educational contexts. Hallinger and Bryant (2013) have identified several unique obstacles that Thai educators encounter, such as the presence of diverse student requirements, the size of their classes, and the disparity in accessible resources. These challenges can be overcome by a customized training program that integrates the principles of visible learning, which equips educators with practical strategies and tools to enhance the transparency and impact of learning.

Using the concept of visible learning, this manuscript endeavors to provide a comprehensive training package that is specifically designed to equip Thai instructors with the necessary skills to succeed in the 21st century. Teacher competencies in evidence-based instruction, effective feedback mechanisms, and the cultivation of a reflective teaching practice are the primary objectives of the training program. Through the integration of these components, the proposed training bundle aims to improve student outcomes in Thai educational settings and improve teacher effectiveness.

In the subsequent sections, we will provide a comprehensive explanation of the training package's components, the theoretical foundations of visible learning, and the anticipated effects on student achievement and teacher practice. Our objective with this research is to enhance the quality of education in Thailand, ensuring that it is in accordance with global standards and that students are adequately prepared for the challenges of the future.

The Concept of Visible Learning

John Hattie, an educational researcher, coined the term 'Visible Learning,' which underscores the significance of rendering student learning visible to educators. This allows educators to comprehend their influence on student achievement and modify their instructional strategies accordingly. The concept is founded on the notion that educators should be reflective practitioners who actively pursue evidence of their effectiveness and modify their methods to more effectively accommodate the requirements of their students. Visible Learning offers a comprehensive framework for the development of teaching

practices that are evidence-based, responsive, and aimed at improving student outcomes in the context of preparing Thai teachers for the 21st century.

The Fundamentals of Visible Learning

1. Educator Clarity

Clear instruction is essential for students to comprehend. It is imperative that educators explicitly state their learning intentions and success criteria (Hattie, 2009).

2. Feedback

Student achievement is significantly impacted by the provision of effective feedback. It should be actionable, specific, and timely (Hattie & Timperley, 2007).

3. Learners who are capable of undergoing assessments

Students should be engaged in their own learning process, comprehending the content they are learning, the pace at which they are making progress, and the next steps they should take (Hattie, 2012).

4. Teaching and Learning that is Visible

It is imperative that teaching strategies are widely visible in order to enable students to develop the ability to become their own educators. Modeling metacognitive strategies and self-regulated learning techniques are included in this (Hattie, 2009).

Incorporating Visible Learning into Thai Teacher Training

The effectiveness of Thai educators can be considerably improved by incorporating the principles of Visible Learning into teacher training programs. The following strategies may be implemented:

1. Workshops for Professional Development

Conduct seminars that emphasize the fundamental principles of Visible Learning. These workshops should incorporate practical activities that enable instructors to practice and receive feedback on their instructional clarity and feedback techniques.

2. Learning Communities that Collaborate

Create professional learning communities (PLCs) in which educators can collaborate to plan and reflect on their teaching strategies, debate student data, and share best practices.

3. The Practice of Reflection

Encourage educators to engage in peer observations and maintain reflective journals in order to perpetually evaluate and enhance their teaching practices.

4. Utilization of Data and Evidence

Teach educators how to effectively utilize data to inform their instruction. The following are included: the analysis of student work, the utilization of formative assessments, and the comprehension of the interpretation of a variety of data sources to enhance student learning outcomes.

Advantages for 21st-century learners

The Visible Learning approach is well-suited to the requirements of 21st-century education, which necessitates the development of self-regulated learning skills, critical

thinking, and problem-solving abilities in students. Teachers can cultivate these essential skills by creating a more engaging and supportive learning environment that makes learning visible.

1. Improved Student Engagement

Students are more likely to be engaged and take ownership of their learning when they comprehend the learning objectives and receive constructive feedback.

2. Enhanced Learning Results

Informed by the principles of Visible Learning, evidence-based teaching practices result in improved student performance and a more profound comprehension of the subject matter.

3. Acquisition of Lifelong Learning Skills

Visible Learning fosters the cultivation of metacognitive abilities, thereby enabling students to develop into self-directed learners who can adjust to the constantly evolving requirements of the 21st century.

The incorporation of Visible Learning into the training of Thai instructors has the potential to significantly enhance educational outcomes in the 21st century. Educators can more effectively address the requirements of their students and prepare them for the challenges of the future by emphasizing clear instruction, effective feedback, and the use of evidence to guide teaching practices.

The Need for a Training Package for Thai Teachers: Training Package to Create Thai Teachers in the 21st Century with the Concept of Visible Learning

A paradigm shift in education is required due to the rapidly evolving demands of the 21st-century workforce and the rapid advancements in technology. Teachers are instrumental in this transformation by encouraging students to develop lifelong learning, critical thinking, and problem-solving abilities (Fullan & Langworthy, 2014). It is imperative that a comprehensive training package be provided to instructors in Thailand in order to address the current educational requirements. This manuscript investigates the necessity of a training package for Thai instructors that is based on the concept of Visible Learning, which centers on the impact of evidence-based teaching practices on student achievement (Hattie, 2009).

The Present State of Teacher Education in Thailand

The Thai education system has encountered difficulties in adapting to the requirements of the 21st century. The development of critical thinking and problem-solving skills among students is inadequately addressed by conventional teaching methods, which frequently depend on rote memorization and teacher-centered instruction (Office of the Basic Education Commission [OBEC], 2019). Additionally, teachers are restricted in their capacity to implement innovative teaching practices due to a substantial dearth of professional development opportunities (International Association for the Evaluation of Educational Achievement [IEA], 2018).

A Training Package is Required

- 1. Professional Development:** Teachers can acquire the skills and knowledge required to implement Visible Learning principles through the provision of ongoing professional development through a well-organized training program. This encompasses the cultivation of a growth mindset among students, the implementation of data-driven decision-making, and the comprehension and application of high-impact teaching strategies (Timperley, Wilson, Barrar, & Fung, 2007).
- 2. Consistency with National Education Objectives:** The training program is consistent with Thailand's national education objectives, which prioritize the enhancement of educational quality and the cultivation of 21st-century skills (Ministry of Education, 2017). The training package can assist instructors in more effectively achieving these objectives by incorporating Visible Learning principles.
- 3. Evidence-Based Practices:** The training program should incorporate evidence-based practices that are specifically designed for the Thai context. This entails the adaptation of international best practices in education to the cultural and socio-economic conditions of Thailand (Fullan, 2011).
- 4. Teacher Empowerment:** The provision of professional development and training to teachers can result in a greater sense of efficacy, motivation, and job satisfaction. Teachers are considerably more inclined to motivate and engage their pupils when they are assured and proficient in their instructional methodologies (Day, Sammons, Stobart, Kington, & Gu, 2007).

Training Package Components

- 1. Workshops and Seminars:** Consistent workshops and seminars that focus on high-impact teaching strategies and Visible Learning principles.
- 2. Collaborative Learning Communities:** The establishment of collaborative learning communities that allow instructors to exchange experiences, challenges, and solutions.
- 3. Mentorship Programs:** The arrangement of experienced teachers with novice teachers to offer guidance and support.
- 4. Online Resources and Tools:** Offering access to online resources, such as instructional videos, research articles, and teaching tools.
- 5. Assessment and Feedback:** Establishing consistent assessment and feedback mechanisms to track progress and make the requisite modifications to the training program.

Advantages of the Training Package

Teachers and students in Thailand may derive numerous advantages from the implementation of a training program that emphasizes visible learning:

1. Improved Student Outcomes: The visibility of learning results in increased engagement and a greater sense of ownership in students, which in turn leads to improved academic performance [Hattie, 2009].
2. Improved Teaching Practices: Teachers will acquire a more profound comprehension of effective teaching strategies and the methods by which they can be implemented in a variety of classroom environments.
3. Professional Development: Teachers will be able to continuously enhance their abilities and remain informed about the most recent educational research and practices by participating in ongoing professional development opportunities.

The necessity of a training program for Thai teachers that is based on the concept of visible learning is readily apparent. Ultimately, the implementation of such a package can provide instructors with the requisite resources to effectively navigate the intricacies of 21st-century education, resulting in improved student outcomes and a more robust educational system in Thailand. In order to continuously enhance and refine the efficacy of this training package, future research should concentrate on its implementation and impact.

Content elements

1. Comprehending Visible Learning:
 - An overview of the research and principles that underpin Visible Learning.
 - Examination of critical concepts, including learning intentions, success criteria, and effect sizes.
2. Learning Intentions and Teacher Clarity:
 - Strategies to guarantee that teachers deliver lessons with clarity.
 - Methods for eloquently communicating the learning intentions and success criteria to students.
3. Teaching Strategies Based on Evidence:
 - Instruction in Hattie's high-impact teaching strategies, including cooperative learning, direct instruction, and feedback [Hattie, 2009].
 - Practical seminars and simulations to implement these strategies in a classroom environment.
4. Evaluation and Feedback:
 - Strategies for delivering feedback that is both effective and beneficial to the learning process of students.
 - Instruments for evaluating pupil progress and utilizing data to inform instructional decisions.
5. Student Motivation and Engagement:
 - Methods for cultivating a classroom environment that encourages student motivation and engagement.

- Integrating student voice and autonomy into the educational process.
- 6. Professional Learning Communities (PLCs) and Reflective Practice:
 - Promoting reflective practice among educators to enhance their instructional methods on a continuous basis.
 - Implementing professional learning communities (PLCs) to facilitate collaborative learning and continuous professional development.

Discussion

The creation and execution of a training program for Thai educators that is based on the concept of Visible Learning is a critical action in the direction of improving the quality of education in Thailand. The primary focus of this discussion will be the training package's theoretical foundations, its anticipated effects on student achievement and teacher practice.

Theoretical Frameworks of Visible Learning

John Hattie's Visible Learning is a concept that is the result of the synthesis of more than 800 meta-analyses on pupil achievement (Hattie, 2009). This comprehensive framework underscores the significance of exposing the learning process to both students and instructors, thereby allowing teachers to comprehend their influence on student learning and modify their strategies accordingly. The training program designed for Thai teachers is built upon the fundamental principles of Visible Learning, which include teacher clarity, effective feedback, assessment-capable learners, and visible teaching and learning (Hattie, 2009; Hattie & Timperley, 2007).

Training Package Components

The training package is meticulously crafted to integrate the principles of Visible Learning into the professional development of Thai instructors. The following are the primary components:

1. Learning Intentions and Teacher Clarity
 - Guaranteeing that educators can effectively communicate the learning intentions and success criteria to students (Hattie, 2009).
2. Teaching Strategies Based on Evidence
 - Instruction in high-impact strategies, including cooperative learning, direct instruction, and feedback (Hattie, 2009).
 - Workshops and simulations that provide hands-on experience.
3. Evaluation and Feedback
 - Strategies for delivering constructive feedback that optimizes student learning (Hattie & Timperley, 2007).

- Instruments for evaluating pupil progress and utilizing data to inform instructional decisions.

4. Student Motivation and Engagement

- Methods for establishing a classroom environment that fosters motivation and engagement.
- Integrating student voice and autonomy into the educational process.

5. Professional Learning Communities (PLCs) and Reflective Practice

- Fostering reflective practice among educators to enhance their instructional strategies (Timperley, Wilson, Barrar, & Fung, 2007).
- Implementing professional learning communities (PLCs) to facilitate continual professional development and collaborative learning.

Strategies for Implementation

Several strategic approaches are necessary to incorporate the principles of Visible Learning into the training of Thai teachers:

1. Workshops for Professional Development

- Conduct seminars that emphasize the fundamental principles of Visible Learning, including practical exercises that enhance instructional clarity and feedback strategies.

2. Learning Communities that Collaborate

- Create professional learning communities (PLCs) in which educators can exchange best practices, engage in collaborative planning and reflection on their teaching strategies, and discuss student data (Day, Sammons, Stobart, Kington, & Gu, 2007).

3. The Practice of Reflection

- Motivate educators to engage in peer observations and maintain reflective journals in order to evaluate and enhance their teaching practices (Fullan, 2011).

4. Utilization of Data and Evidence

- Provide teachers with the necessary skills to effectively utilize data to inform their teaching, which includes the analysis of student work and the implementation of formative assessments (Fullan & Langworthy, 2014).

Expected Effects on Student Achievement and Teacher Practice

It is anticipated that the Visible Learning approach will have a substantial impact on both student outcomes and teacher practices. Teachers will acquire a more profound comprehension of effective teaching strategies and the methods by which they can be implemented in a variety of classroom environments. Ultimately, the focus on evidence-based practices and continuous reflection will result in improved student engagement and achievement, as well as increased teaching effectiveness (Hattie, 2009).

1. Improved Student Engagement

- Students who comprehend learning objectives and receive constructive feedback are more inclined to be engaged and assume responsibility for their learning (Hattie, 2009).

2. Enhanced Learning Results

Informed by Visible Learning principles, evidence-based teaching practices will result in improved student performance and a more profound comprehension of the material (Hattie & Timperley, 2007).

3. Acquisition of Lifelong Learning Skills

- Visible Learning fosters the cultivation of metacognitive abilities, enabling students to become self-directed learners who can adjust to the challenges of the 21st century (Hattie, 2012).

Conclusion

The incorporation of Visible Learning into the training of Thai instructors has the potential to significantly enhance educational outcomes in the 21st century. Educators can more effectively address the requirements of their students and prepare them for future challenges by emphasizing the use of evidence, effective feedback, and clear instruction. The objective of this comprehensive training package, which is customized to the distinctive cultural and educational contexts of Thailand, is to provide teachers with the requisite skills and knowledge to promote enhanced student engagement and achievement, thereby supporting the ongoing endeavors to improve the quality of education in Thailand (OBEC, 2019; Ministry of Education, 2017).

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